

AMENDMENTS TO THE SPECIFICATION

Please amend paragraph 0065, starting on page 21 and ending on page 22, as follows:

[0065] At processing block 822, the first processor, now ~~awaken~~awakened, may claim the ownership of the lock and may also reclaim any previously relinquished resources. Previously relinquished resources may refer to the resources relinquished by the first processor while asleep and waiting for the lock. According to one embodiment, while the processor sleeps, the processor sleep/awake logic 377 may include pipeline flush logic 382 to drain the processor pipeline in order to clear all instructions at processing block 530. Once the pipeline has been drained, partition/anneal logic 385 may cause any partitioned resources associated exclusively with the first processor to be relinquished for use by other processors. These relinquished resources may be annealed to form a set of larger resources for other processors to utilize. For example, referring to the two-thread example of Figure 4, all instructions related to thread 1 might be drained from both queues. Each pair of queues may then be combined to provide a larger queue to the second thread. Similarly, more registers from the register pool may be made available to the second thread, more entries from the store buffer may be freed for the second thread, and more entries in the re-order buffer may be made available to the second thread. In essence, these structures are returned to single dedicated structures of twice the size. Different proportions resulting from implementations using different numbers of processors are contemplated.

AMENDMENTS TO THE DRAWINGS

Applicants submit herewith amended Figures 1 and 3 to replace Figures 1 and 3 originally submitted at the time of the filing of the Application (June 27, 2003). The amended Figures 1 and 3 include the following amendments:

With regard to Figure 1, please replace “REPLICATED IPS 190” with --REPLICATED IPs 170--.

With regard to Figure 3, please make the following amendments:

Replace “BACKE END 380” with --BACK END 380--.

Replace “BUS CONTROLLER” with --BUS CONTROLLER 340--.